Centaurium namophilum Reveal, Broome & Beatley (1973) SPRING-LOVING CENTAURY

FAMILY: *Gentianaceae*, the gentian family.

SYNONYMS: Centaurium namophilum var. namophilum

STATUS:

Heritage Program SENSITIVE LIST, ranks: G2Q S2

USFWS/ESA: LISTED THREATENED. STATE OF NEVADA: FULLY PROTECTED. BLM: Special Status Species. USFS: none. NNNPS: THREATENED. IUCN: vulnerable.

POPULATION CENSUS: 14 occurrences mapped at 1.0 km (0.6 mi) separation, OR **19 occurrences mapped** at 0.16 km (0.1 mi) separation; total estimated **individuals 4230**+, total estimated **area 10.5**+ **ha (25.9**+ **ac)**. **TREND:** unknown.

IMPACTS AND MAJOR THREATS: Regional groundwater pumping, competition from invasive weeds, impacts from past agricultural conversion and water diversion.

INVENTORY EFFORT: Surveys are largely complete, but a few more undocumented occurrences are likely to exist in the Ash Meadows area. Most recent entered survey 1986, average year of last survey 1983.

Years since last entered survey (percent of mapped records at various survey ages): 11-20 yrs: 78.9%; 21-30 yrs: 5.3%; 31-50 yrs: 15.8%.

LAND MANAGEMENT in decreasing predominance: U. S. Fish and Wildlife Service, U. S. Bureau of Land Management, private lands.

RANGE: Nye County, Nevada. Endemic to the Ash Meadows area. Maximum **range dimension 14.3 km (8.9 mi)** excluding most disjunct record. **Type specimen** collected in Nye County.

ELEVATIONS RECORDED: 2100-2350 feet (640-716 meters).

HABITAT: Open, moist to wet, alkali-crusted clay soils of seeps, springs, outflow drainages, meadows, and hummocks, with Distichlis spicata, Pyrrocoma, Juncus balticus, Anemopsis californica, Nitrophila occidentalis, Atriplex, Cordylanthus tecopensis, Fraxinus, Prosopis, Tamarix, Baccharis, Typha, Cirsium, Iva, etc. Aquatic or wetland-dependent.

PHENOLOGY: flowering summer. Range of most frequent survey months: July-August.

LIFE-FORM AND HABIT: annual.

DESCRIPTION: not available (see references).

PHOTOGRAPHS: Nevada Natural Heritage Program images web page (1998-present), slide collection (1986-present), and files.

ILLUSTRATIONS: Mozingo and Williams (1980).

OTHER GENERAL REFERENCES (listed separately): Beatley (1976).

SPECIFIC REFERENCES:

Broome, C. R. 1981. A new variety of Centaurium namophilum (Gentianaceae) from the Great Basin. Great Basin Naturalist 41: 192-197.

Reveal, J. L., C. R. Broome and J. C. Beatley. 1973. A new Centaurium (Gentianaceae) from Death Valley region of Nevada and California. Bulletin of the Torrey Botanical Club 100: 353-356.

OF FURTHER INTEREST: Reports of Centaurium namophilum from California are apparently based on collections of the Centaurium namophilum var. nevadense Broome, which many botanists consider to be the same species as Centaurium exaltatum (Grisebach) W. Wight. The rare taxon in Nevada would be named Centaurium namophilum var. namophilum if the var. nevadense is also recognized.